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Ghiurca, Ana-Andreea; Lamasanu, Andreea; Mihai, Florin-Constantin

Veröffentlichungsversion / Published Version  
Zeitschriftenartikel / journal article

### Empfohlene Zitierung / Suggested Citation:

Ghiurca, A.-A., Lamasanu, A., & Mihai, F.-C. (2012). Rural-urban relations in the context of sustainable development: case study: Cuejdiu Valley Basin, Neamt County. *Lucrări Științifice : Seria Agronomie*, 55(2), 327-330. <https://nbn-resolving.org/urn:nbn:de:0168-ssoar-437162>

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## RURAL-URBAN RELATIONS IN THE CONTEXT OF SUSTAINABLE DEVELOPMENT. CASE STUDY: CUEJDIU VALLEY BASIN, NEAMȚ COUNTY

Ana-Andreea GHIURCĂ<sup>1</sup>, Andrea LĂMĂȘANU<sup>1</sup>, Florin-Constantin MIHAI<sup>1</sup>

e-mail: [anaandreeaghiurca@yahoo.com](mailto:anaandreeaghiurca@yahoo.com)

### Abstract

Rural and urban development in sustainable context is a complex process that requires an improvement of the existing situation and a removing of the dysfunctions. Over time, the rural area was not addressed as much as urban area, rural analysis is often fragmentary explained and incomplete argued. The system of values owned by rural area is overshadowed by an economic, social and cultural subordination to the city. The connection that is established is a support for the systems analysis of settlements and is the consequence of the functional differentiation between cities and villages, evidenced by the natural, social and economic aspects representative for each system. Our research highlights the relationship, to the social, economic and cultural level, between the municipality of Piatra Neamț and Gârcina commune, situated in proximity. The dependence of rural areas to the city is evident due to the very small distance between them, the existing phenomena causing significant changes in both sides. The population is an important indicator of sustainable development, the demographic relationship between urban and rural area consisting intake of labor resources and sources of supply organic food. The demographic, economic, administrative, educational, cultural and sanitary relations will be highlighted based on statistical data, through graphs and maps, their interpretation referring in the same time to the situation of county level. The partnership established between rural and urban areas lead to the development of urban system and a rural preservation, so new concepts of sustainable development is essential in the exploitation of local resources.

**Key words:** rural development, rural space, urban development, rural-urban relations

**Introduction.** Rural and urban development requires a balance between human capital, economic progress and natural resources. Sustainable development can be achieved at any level, provided that each component of the system to have the same importance in maintaining a balance between the need to develop and its possibilities. Sustainable development is a process of local importance, which involves the accumulation of wealth and the increase in the standard of living in a small space, where the natural resources and entrepreneurship plays a determinative role (Ungureanu I., 2003).

According to the Brundtland report in 1987, the city, by definition, is not sustainable, in comparison with the village that has a sustainable nature (Bran F. M., Rădulescu G.C., 2011).

The rural-urban metabolism generates relations of interdependence between villages and towns, resulting in the formation of a “variety of societies, from deep rural to deep urban” (Miftode V., 1978).

### MATERIAL AND METHOD

**Material and method.** This research focuses on the relationship between rural and urban areas that have a remarkable significance in the analysis of human settlements, a complex system, in which the population plays the most important role. Demographic, economic, administrative and cultural relations represent the functional differentiation effect between urban and rural, and their intensity is directly proportional to the distance between the two types of settlements (Istrate, 2008).

The proposed study area is represented by the Cuejdiu Valley basin, located in the central part of Neamț County, in the territory of the commune Gârcina (formed by Gârcina, Cuiejdi and Almaș villages) and the Piatra Neamț city. It has an area of approximately 100 km<sup>2</sup>, Cuejdiul River being a tributary of the Bistrița River, with a total length of 24 km.

The distance between the village Gârcina and the city of Piatra Neamț is very small, 12 km, which demonstrates the existence of close relations with the neighboring urban area.

<sup>1</sup>Universitatea „Alexandru Ioan Cuza”, Iași

Statistical data used in this study for the municipality and village level were provided by the Neamț County Statistics Department. There were accomplished representative graphic and cartographic materials for the period 1990-2010, their analyze emphasizing the relationship between village and city.

## RESULTS AND DISCUSSIONS

Results and discussions. The assessment of the relationship between the rural and urban space lies in particular in the conservation and development of values specific to each area. Both rural and urban development are key issues for sustainable development, which highlight that the limits between villages and towns should be dimmed by focusing on opportunities in rural areas, to provide additional facilities in the rural-urban partnership (Espancia J., 2005).

Gârcina commune is considered part of the suburban areas of Piatra Neamț. Relations intensity established between the urban and the rural area is reflected in the "*centrifugal forces*" (those from the city) and "*centripetal forces*" (those from the country side to the city), Gârcina commune having role of "*buffer zone*" (Cocean P., 2007).

The surrounding area is subject of "*phenomena of attraction and diffusion*", leading to a "*specific mix of urban and rural areas*", which

records continuous transformation. (Man T., Mateoc-Sârb N., 2007). Thus, some of the rural area population has jobs, study or carries out activities of commerce and supply in the urban space.

From a demographic perspective, addressing the relationship between urban and rural areas can be achieved by highlighting the mean annual rate of increase for each area separately. This analysis presents the dynamics of population during several periods (1992-2002, and 2002-2010), calculated as a geometric mean of annual rate of increase (Vert C., 1995).

For the period 1992-2002, the mean annual rate of increase calculated for Piatra Neamț is negative (-1.6%), indicating that the city recorded a loss of population due to changes in the economic sector. As regards rural area, the mean annual rate of increase is positive (0.36%), which demonstrates the tendency of concentration of population around the urban area. From 2002 to 2010 is a different situation, in that the city recorded positive values (0.27%), but much lower compared to the Gârcina commune (1.04%). The mean annual rate of increase values are represented in the period 1990-2010 every two years, the urban area recording negative values on almost all range (fig. 1).

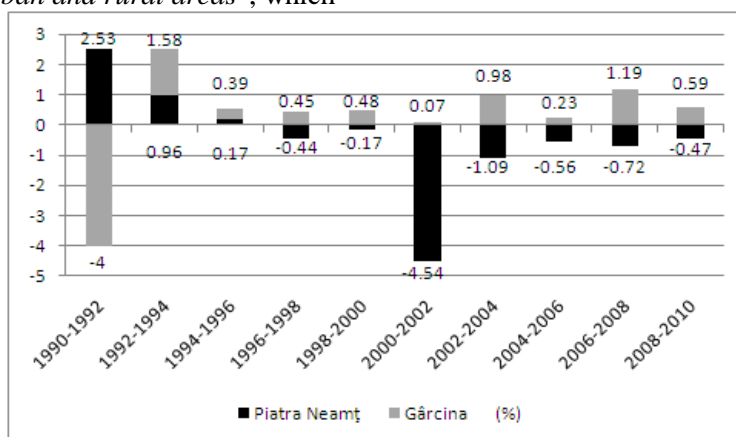


Figure 1 The mean annual rate of increase in Piatra Neamț and Gârcina (1990-2010)

Another key to highlight the rural-urban relations is reflected by the migratory movement of population. Gârcina commune is one of the most active locality in terms of the daily flows of migrants (Gârcina village is directly located in suburban area due to the short distance to the city and villages Cuiejdî and Almaș are part of an moderate suburban area, being less accessible).

The quality of transport infrastructure has a very important role in the degree of rural accessibility, depending on which one can distinguish socio-demographic and socio-economic structures (Muntele et al, 2010).

The peripheral urbanization process influenced the urban and the rural areas, first through the rural exodus (migration of rural population to urban areas due to industrialization) before 1989 and then a reverse migration after 1990, due to the decrease in the standard of living in the urban area.

The phenomenon of migration was highlighted before 1990 by the commuter population of the village, which had the highest share compared to other nearby rural areas (29.52%), the persons employed in agriculture and students were not included in this value. Current period differs from the point of view of migration

of the previous, rural is favored and considered more attractive than urban. Negative values of the balance of migration in the city of Piatra Neamț (-0.68% in 1992 -2002 and 8.15% in 2002-2010) is due to the tendency of suburbanisation. Gârcina commune has positive values of net migration in

both periods (8.29%, 11.78%), demonstrating the displacement of urban population in the rural area. Plotting the net migration rate for the period 1990-2010 shows that negative values are characteristic to urban area (*fig. 2*).

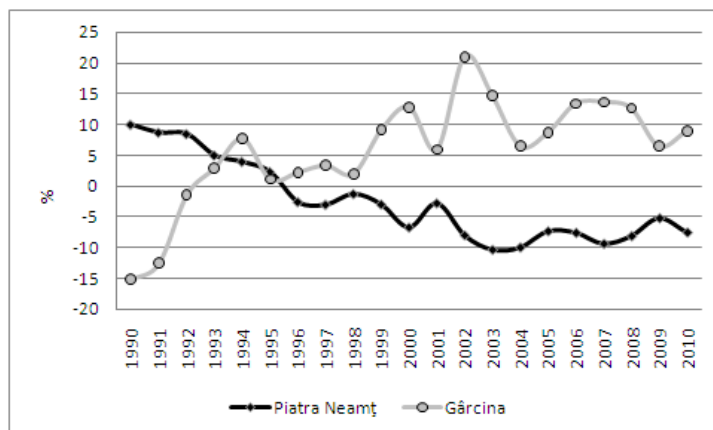


Figure 2 Net migration in Piatra Neamț and Gârcina (1990-2010)

The reduction of commuting for work during the period 1990-2002 is balanced by movements with private cars, but also the means of transportation between the city and commune, and vice versa, for different reasons: economic, commercial, legal, financial, health care, jobs. Movements of the weekend for rest and recreation are highlighted by people who either possesses a holiday villa or second home is in rural areas.

Another form of commuting is done by students who study in the urban area, a situation evidenced by the amount of the value of school enrollment (calculated for primary studies according to the total number of students enrolled in primary and secondary education, aged between 7 and 14 years in 2002), which is 101.3% in Piatra Neamț and 87.9% in Gârcina commune.

From the economic point of view, the interaction between the commune and the municipality is enhanced by the presence of economic activities, which allowed the expanding area of influence of the city. Thus, the development of industry before 1990 (especially industrial platform Săvinești-Roznov) has led to the practice of commuting workforce from rural areas, movement that intensified even more the relationship with the rural space through the exchange of goods, people, information, benefits for both sides. With the industrial decline and the low number of commuters began to appear small companies engaged with activities like services, tourism, commerce, etc.

In 1992 and 2002, is felt a substantial reduction in the active population generating a

tendency of reduction of the labor force, illustrated by increasing the proportion of unemployed persons, both at the city level and at the commune (*fig. 3*). Gârcina commune, immediately after 1990, had close interaction with the urban area, meaning the development of companies with specific activities like wood industry, food industry etc. The advantages of extending of these companies are: the existence of labor force and low taxes compared to urban areas, but also in the supply of quality products. Piatra Neamț is a big consumer of agro-food products; supply is carried out mainly from the nearby rural areas.

Financial support resulting from these activities contribute to the social and economic life, embodied by the large number of homes built with elements similar to the urban style, villa type. Their building creates a transition zone between the urban space and traditional rural dwellings which are of two categories: residential villas, whose owners are business people or persons residing in town and working in both rural and urban area and holiday villas, whose owners are part of the "privileged class" who have a home in the city and one in the commune (Letos D., 2011).

This orientation towards the rural neighboring had caused changes in the utility system from the area, generating conversions in terms of living standards, the gaps of the city being slightly attenuated.

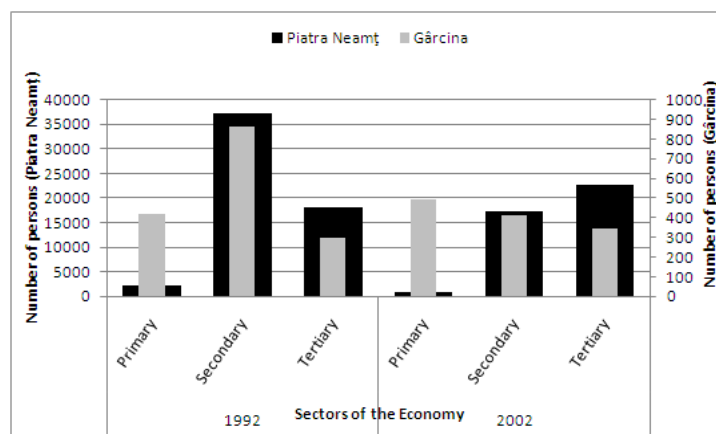


Figure 3 Active population in Piatra Neamț and Gârcina (1992 and 2002)

The force of attraction of the city over the rural area is characterized by demographic, economic and cultural aspects, favoring mutual transfer of labor, resources, information, values, etc. The post-communist period has led to changing demographic behaviour, thus trend of demographic indicators had severe effects on the socio-economic structure. Interconnection between villages and towns can generate the necessary conditions for urban and rural sustainable development, the essential premise in raising of living standards of population.

### CONCLUSIONS

Conclusions. Depending on the historical, political and socio-economic stages that have developed over time the relations between Piatra Neamț city and Gârcina commune presents a chronological a spatial evolution, where the characteristic flows have changed. Industrialization period favored commuting, which decrease in the stage of economic restructuring, development of small enterprises being predominant. This phenomenon leads to the development of economic activities in rural areas and bring a revenue source for the residents, but also supply resources for the city.

Construction of new housing in rural areas show the level of development of the area, while facilitating the movements of urban-rural, with different purposes.

### ACKNOWLEDGMENTS

This work was supported by the European Social Fund in Romania, under the responsibility of the Managing Authority for the Sectorial Operational Program for Human Resources Development 2007-2013 [grant POSDRU/107/1.5/S/78342].

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